

## CLAIMS:

1. Discharge vessel (1) with at least one end part (2) and a discharge cavity (3),  
characterized in, that at least one coating layer (4) is located and gas-tight connected  
between an end part (2) of said discharge vessel (1) and a sealant (5) and/or between a  
5 sealant (5) and an end closure member (9).
2. Discharge vessel (1) according to claim 1, characterized in, that the gas-  
tight bonding of the coating layer (4) to the discharge vessel (1), to a sealant (5), and/or  
to an end closure member (9) is stronger compared to the direct gas-tight bonding of  
10 said sealant (5) to said end closure member (9) and/or discharge vessel (1).
3. Discharge vessel (1) according to claims 1 to 2, characterized in, that the  
coating layer (4) has an expansion coefficient in the range between  $4 \cdot 10^{-6} \text{ K}^{-1}$  and  $12 \cdot 10^{-6} \text{ K}^{-1}$ .  
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4. Discharge vessel (1) according to claims 1 to 3, characterized in, that the  
coating layer (4) is chemically resistant towards oxides and iodides.
5. Discharge vessel (1) according to claims 1 to 4, characterized in, that the  
20 coating layer (4) is of a material selected from the group comprising at least W, Mo,  
and/or Pt.
6. Discharge vessel (1) according to claims 1 to 5, characterized in, that the  
coating layer (4) covers at least the end parts (2) of the discharge vessel (1) of the end  
25 closure device (7).

7. Gas-tight high-pressure burner (6) with coating layer (4) comprising at least one discharge vessel (1) according to claims 1 to 6 and at least one end closure device (7) and at least one feed-through (8).

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8. Gas-tight high-pressure burner (6) according to claim 7 comprising at least one end closure member (9) with at least one feed-through (8), preferably the end closure member (9) has at least one through-going feed-through opening, whereby the feed-through opening cross-section varies along the end closure member (9)

10 longitudinal axis.

9. Lamp, comprising at least one gas-tight high-pressure burner (6) according to claims 7 or 8, whereby the lamp is preferably arranged in an automotive headlamp unit.

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10. Method of manufacturing a gas-tight high-pressure burner (6) according to claims 7 or 8, comprising

a) at least one end closure member (9),

b) at least two feed-through members (8),

20 c) at least one connection means (10),

d) at least one sealant (5), and

e) at least one discharge vessel (1) with a coating layer (4), whereby the manufacturing method comprises the steps:

25 i) filling said discharge vessel (1) with an ionisable filling through at least one feed-through opening, and

ii) closing said feed-through opening by arranging a feed-through (8) in said opening followed by gas-tight connecting said feed-through (8) to the end closure device (7) and/or to the discharge vessel (1) with connection means, whereby a gas-tight high-pressure burner (6) is obtained.

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